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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,754	07/21/2003	Gerald P. Jackson	Hbar-P2-03	4859

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PETER K. TRZYNA, ESQ.  
P O BOX 7131  
CHICAGO, IL 60680

EXAMINER
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LEYBOURNE, JAMES J

ART UNIT	PAPER NUMBER
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2881

DATE MAILED: 06/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/623,754

Applicant(s)

JACKSON, GERALD P.

Examiner

James J. Leybourne

Art Unit

2881

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_

**DETAILED ACTION**

***Claim Objections***

1. Claims 32 and 37-39 are objected to because of the following informalities:

Claim 32, line 10; claim 37, line 3 and claim 38 line 3 recite the limitation "the material". There is insufficient antecedent basis for this limitation in the claims.

Claim 39, line 2 recites the limitation "passing the beam". There is insufficient antecedent basis for this limitation in the claim as applied to claims

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32-38. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claim 1, line 3; claim 23, line 3; claim 24, line 4 and claim 32, line 3 refer to "a mass". From the claims, it is not clear whether this refers to the mass of a

particle or a mass comprising a "solid, liquid gas, or a combination thereof" as stated in the specification on page 9, line 5.

4. In claim 32 lines 6 and 9 cite "a power". It is not clear what power is referenced. From the specification, the power cited is the power required to generate the focusing and bending magnetic fields.

5. Claim 32 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: "passing a beam of charged particles through the mass" and "superimposing the focusing and bending magnetic fields on the mass". It is essential to the invention that the magnetic fields are in the mass and that the particle beam passes through the mass.

Claims 2-22, 25-31 and 33-39 are indefinite because of their dependence on claims 1, 24 and 32 respectively.

#### ***Allowable Subject Matter***

6. Claims 1, 23, 24 and 32 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

7. Claims 2-22, 25-31 and 33-39 are objected to as being dependent upon a rejected base claim, but would be allowable by virtue of their dependency on claims 1, 24 and 32 respectively.

8. The following is a statement of reasons for the indication of allowable subject matter:

It is well known in the art to slow a particle beam by passing it through a material. However, the prior art fails to teach or fairly suggest superimposing one or more magnetic fields on the material to focus or bend the particle beam as it passes through the material.

***Relevant Prior Art***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Moyers et al. (USPN 5440133), Yanagisawa et al. (US 2004/0056212), Jongen et al. (USPN 6433336) and Sukenobu et al. (JP 2001-000562) disclose systems that reduce the energy of a particle beam by passing the beam through a material.

***Conclusion***

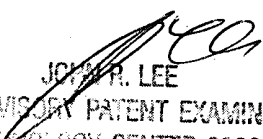
Any inquiry concerning this communication or earlier communications from the examiner should be directed to James J. Leybourne whose telephone number is (571) 272-2478. The examiner can normally be reached on M-F 9:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R Lee can be reached on (571) 272-2477. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

May 17, 2004

JJL

  
JOHN R. LEE  
SUPERVISOR, PATENT EXAMINER  
TECHNOLOGY CENTER 2800